

User's Guide

V 1.0

GENIE-5501

USB to RS485
converter

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Inside the package

Upon opening the package, check out all the following items are in good condition. Should any one item is missed, incorrect or damaged, pack them back and contact your dealer for warranty.

1. The device GENIE-5501 (model number is on product sticker)
2. One piece of two-pin terminal block connector
3. CD which contains USB driver and user's manual
4. An USB cable (mini B type) in 1 meter length

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Product description :

The GENIE-5501 is a device for transforming USB 1.0 or 1.1 signal to two-wire balanced RS485 format for multi-drop topology. Multi-drop is a network in which one or more nodes (slave units) can be connected to one single host to make an effective and reliable control system across a wide space.

The half-duplex format adapted by the GENIE-5501 device is a simple two-wire communication method with high reliability. It provides two-way communication but only one side can talk at a time. The RS485 signal may run a maximum range to 1,200 meters (4,000 feet) between host and the nodes, depending on the cable and transmission speed (baud rate)

This device has wide speed range from 1.2K to 115.2K, in order to meet different networking requirement. As speed goes up, transmission range may reduce accordingly.

The GENIE-5501 also has surge protection circuit equipped, to avoid being damaged by pulse or impulse energy accumulated in the network.

Feature :

1. Converting data between USB and RS-485 formats
2. Powered by host PC through the USB cable
3. Optional baud rates from 1,200bps to 115.2Kbps (selected by AP)
4. Transmission range up to 4,000 ft. (1,200 meters)
5. Two-wire half duplex format for multiple nodes
6. Guarded by built-in surge protection circuit
7. Status indicating LEDs for Power, T+ and T-
8. Compliance with CE and FCC

Specification :

Operation voltage :	DC + 5V, supplied by host via USB cable
Connectivity :	USB mini B type male (signal from host) 2-pin terminal block (RS-485 to nodes)
Baud rate:	1.2K to 115.2K per second
Maximum number of unit loaded:	32 (load current is 1mA or less per unit)
RS485 Terminating impedance:	150 ohms
LED indicators:	Red for power Green for T+ Yellow for T-

OS compatibility

1. Windows 98SE, ME, 2000, XP
2. Mac OS 8.x, 10.1x, 10.2x, 10.3x
3. Linux

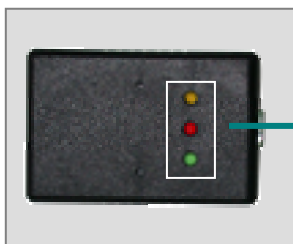
Product-look



RS485 port (terminal block)



USB port (mini-B type)



Status indicator LED

Yellow → T -
Red → Power
Green → T +

Install the USB driver

Important Notice

Install the USB driver into host PC first, before the GENIE-5501 and its attachment nodes are physically connected to the host.

If you do it reversely, it can fail the USB driver installation. When this happens, follow the steps on below to relief the problem:

- disconnect the GENIE-5501 from PC
- un-install the driver with “add-remove” tool provided by the PC
- re-install the driver

The USB driver will be automatically installed by the installer program. Just follow the steps on below to find and activate the installer.

- 1 Load the supplied CD into the host PC
- 2 Find the target file (PL-2030 driver installer) in the supplied CD via the path:

USB driver → Windows → PL-2030 driver installer

Note: There are 3 versions of driver included in the folder “USB driver”;
Make sure the one you choose meet your PC version

- 3 To activate the installation, double the target file
- 4 Follow the instruction wizard during the installation
- 5 After the driver installation is finished, connect the GENIE-5501 to the host PC with the supplied USB cable.

Additional information (for Mac the Linux users):

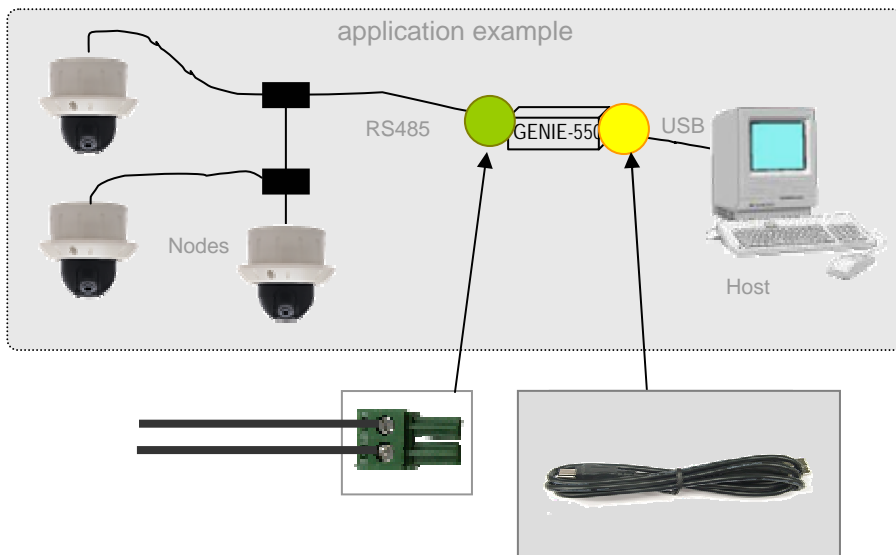
- (A) To install USB driver to Mac or Linux system, choose and open the folder with corresponding name inside the folder “USB driver”, and read the install instruction given in the same folder.
- (B) For Mac system, uncompress the driver program with the Mac computer first.

Hardware connection

Important Notice

Install the USB driver into host PC first, before the GENIE-5501 and its attached nodes are physically connected to the host.

(To install driver, read installation guide in the previous page)



Notice:

1. To transmit RS-485 for longer than 500 meters, it is suggested to use AWG-24 or cable with higher gauge number.
2. Termination resistor with proper resistance may be needed at the input of the end unit, for impedance matching. The resistance should be in the range from 120 to 250 ohms.
3. Do not connect more than 32 units (including the end unit) in the network attached to one GENIE-5501.